

WHAT IS CLAIMED IS:

1. A numeric display device mounted in a torque wrench having a preset maximum torque, the torque wrench comprising a hollow, cylindrical handle, an enclosed box portion at a forward end of the handle, and a torque measurement assembly at a rear end of the handle, the torque measurement assembly being releasably coupled to a rear end of the enclosed box portion and adapted to transmitting signals to the display device.
2. The display device of claim 1, wherein the torque measurement assembly is adapted to receive signals output from the enclosed box portion and transmit the signals to the display device so that the display device is adapted to numerically display an amount of torque being exerted by the wrench responsive to the enclosed box portion being operative to hold and turn an article.
3. The display device of claim 1, wherein the torque measurement assembly is adapted to receive signals output from the enclosed box portion and transmit the signals to the display device so that the display device is adapted to numerically display an amount of torque being exerted by the wrench when the enclosed box portion trips while operating.
4. The display device of claim 1, wherein the torque measurement assembly is adapted to turn for generating signals representing a preset maximum torque and transmitting the signals to the display device so that the display device is adapted to numerically display the preset maximum torque when tripping.
5. A torque wrench having a preset maximum torque, the torque wrench including a hollow, cylindrical handle, an enclosed box portion at a forward end of the handle, a torque measurement assembly at a rear end of the handle and being releasably coupled to a rear end of the enclosed box portion, and a numeric display device for receiving signals output from the torque

measurement assembly, the torque measurement assembly comprising:

a trigger member mounted in the handle, the trigger member having a front end releasably coupled to the rear end of the enclosed box portion;

a signal generator including a forward end coupled to a rear end of the trigger member, the signal generator being adapted to generate signals and transmit the signals to the display device; and

a setting assembly mounted at the rear end of the handle, the setting assembly having a forward end coupled to the signal generator, the setting assembly being adapted to move in the handle for pushing the signal generator.

6. The torque wrench of claim 5, wherein the torque measurement assembly is adapted to receive signals output from the enclosed box portion and transmit the signals to the display device so that the display device is adapted to numerically display an amount of torque being exerted by the wrench responsive to the enclosed box portion being operative to hold and turn an article.

7. The torque wrench of claim 5, wherein the torque measurement assembly is adapted to receive signals output from the enclosed box portion and transmit the signals to the display device so that the display device is adapted to numerically display an amount of torque being exerted by the wrench when the enclosed box portion trips while operating.

8. The torque wrench of claim 5, wherein the torque measurement assembly is adapted to turn for generating signals representing a preset maximum torque and transmitting the signals to the display device so that the display device is adapted to numerically display the preset maximum torque when tripping.

9. The torque wrench of claim 5, wherein the enclosed box portion comprises an extension at a rear end, and the trigger member comprises a roller at a front end being in contact with the extension.

10. The torque wrench of claim 5, wherein the signal generator comprises a forward resilient means having a forward end biased against the trigger member, a rear sensor, and an intermediate disc having a forward side engaged with the resilient means and a rear side engaged with the sensor so that the sensor is adapted to generate signals in response to compressing or expanding the resilient means.
11. The torque wrench of claim 10, wherein the resilient means is a spring.
12. The torque wrench of claim 10, wherein the disc comprises a raised central portion at the rear side engaged with the sensor, the engagement area being substantially the same as a front surface of the sensor.
13. The torque wrench of claim 5, wherein the setting assembly comprises a forward cylindrical member having a forward barrel for receiving a sensor of the signal generator, a rear knob threadedly secured to the cylindrical member, a sliding pin inserted through an elongated groove on the handle, into the cylindrical member for coupling therewith, and a cap interconnected the cylindrical member and the knob so that turning the knob will advance the cylindrical member to push the signal generator until being stopped by the cap.
14. The torque wrench of claim 5, wherein the signals generated by the signal generator and transmitted to the display device are either voltage signals or current signals.